CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 94-009

WASTE DISCHARGE REQUIREMENTS FOR:

CHATEAU ST. JEAN WINERY
KENWOOD, SONOMA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Chateau St. Jean Winery, hereinafter called the discharger, owns and operates a winery located at 8555 Sonoma Highway in Kenwood, Sonoma County. The discharger filed a Report of Waste Discharge dated September 20, 1993 for update and reissuance of Waste Discharge Requirements for the discharges of domestic and winery wastewaters to on-site treatment and disposal systems.

2. The wastewater discharges are currently governed by Waste Discharge Requirements prescribed by this Board's Order No. 84-3, adopted on January 18, 1984.

3. Wastewater is generated on a year round basis with the highest winery wastewater flows occurring during the grape crushing season in August and September of each year. The following wastes are discharged at the site:

   a) Waste No. 001 consists of sanitary sewage from employees and visitors at an estimated flow of 1775 gallons per day (gpd). The waste is discharged into a septic tank and conventional sub-surface disposal field, which has been approved by the Sonoma County Health Department.

   b) Waste No. 002 consists of industrial wastes from the production of wine including crushing, bottling, and cleanup operations. The average annual flow is 13,352 gallons per day, and the average daily flows during the crushing season is 20,048 gallons per day. The maximum daily flow during the crushing season is 54,450 gallons per day. Winery wastewater is screened and neutralized prior to biological treatment in two aeration ponds of about 1.0 million gallons capacity each. The wastewater is reclaimed and used for vineyard and

      landscape irrigation, or frost protection on the discharger's property. The location of the irrigation site is shown in Attachment A, which is hereby made a part of this Order.

4. The discharger's facility operates under a use permit issued by the County of Sonoma. The use permit was reissued in August 1990 to upgrade the winery production from 185,000 cases per year to 250,000 cases per year.

5. In order to provide additional treatment and disposal capacity to accommodate the increase in wine production, the discharger proposed in January 1992 to

modify the existing aeration ponds and increase the size of the areas used for wastewater reclamation. Reports and plans submitted on January 7, 1992 and February 12, 1992 document the wastewater flows and pond design changes. The Sonoma County Department of Planning approved the pond expansion project by a letter dated April 20, 1992.

6. The aeration ponds were deepened by raising the levees surrounding the ponds, and four new 15 horsepower aerators were installed. A 4,500 gallon septic tank was added as part of the pretreatment process for the wastewater. This tank allows for settling of solids, primarily diatomaceous earth and dead yeast cells, that previously accumulated in the bottom of the aeration ponds.

7. The aerated lagoons are designed to treat peak loadings of 53,460 gallons per day of process wastewater with 3,000 mg/l Biochemical Oxygen Demand. The total volume of the lagoons is approximately 2,048,196 gallons with 2 feet of freeboard.

8. After treatment in the aeration lagoons, the wastewater is reclaimed for irrigation of vineyards on the site. Areas of the site utilized for this purpose are shown on Attachment A of this Order. A total of 22.31 acres are used for reclamation. Very little irrigation of grapes takes place from November through February. The total quantity of water used for irrigation during the period from February through November is 0.74 million gallons. Wastewater in the lagoons that is not used for irrigation each year is lost primarily through evaporation.

9. Solid wastes from the winemaking process include pomace, seeds, stems, diatomaceous earth, and dead yeast cells. Approximately 15,987 cubic yards of pomace and stems are generated annually. These solids are used for soil enhancement on site during the dry weather period.

10. An unnamed stream is located approximately 1500 feet to the north of the wastewater ponds. This stream is tributary to Sonoma Creek.

11. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on September 16, 1992, and the State Water Resources Control Board approved the revised Basin Plan on April 27, 1993. The Basin Plan identifies beneficial uses and water quality objectives for surface and ground waters in the region. The provisions of this Order are consistent with the objectives of the Basin Plan.

12. The beneficial uses identified in the Basin Plan for the upper Sonoma Valley ground waters include:

    a. Municipal supply
    b. Industrial process supply
    c. Industrial service supply
    d. Agricultural supply

13. The beneficial uses of the Sonoma Creek as set forth in the Basin Plan include:

    a. Navigation
    b. Water Contact Recreation

c. Ocean Commercial and Sport Fishing
d. Warm Fresh Water Habitat
e. Preservation of Areas of Special Biological Significance
f. Wildlife Habitat
g. Marine Habitat
h. Fish Migration

14. The County of Sonoma determined that the modifications to the existing aeration ponds and increased wastewater flows will have no significant adverse impacts on the environment, and therefore adopted a Negative Declaration for the project in accordance with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.).

15. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

16. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Chateau St. Jean Winery, pursuant to the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. Wastewater discharged to the pond system shall not exceed the following:

   a. 14,500 gallons per day, as a monthly average, during the eight month period of the year from December through July.

   b. 21,048 gallons per day, as a monthly average, during the four month period of the year from August through November.

2. The collection, treatment, storage and disposal of wastewater shall not create a pollution or nuisance as defined in Sections 13050 (l) and (m), respectively, of the California Water Code.

3. There shall be no bypass or overflow of wastewater to waters of the State from the discharger's wastewater collection, treatment, storage or disposal facilities.

4. The storage, treatment and disposal of wastewater shall not degrade the quality of any groundwater used for domestic purposes or cause an increase in any quality parameter that would make ground water unsuitable for irrigation use.

5. The discharge of toxic substances into the discharger's wastewater ponds which will disturb the pond's normal biological mechanisms is prohibited.

6. Neither Waste 001 or 002 shall be allowed to escape from the discharger's property into waters of the State via surface flow, surfacing after percolation, or airborne spray.

7. The discharge of domestic wastewater into the aeration pond system is prohibited.

B. DISCHARGE SPECIFICATIONS

1. Water in the wastewater ponds, within one foot of the water surface, shall meet the following quality limits at all times, in any grab sample:

a. Dissolved Oxygen	2.0 mg/l, minimum
b. Dissolved Sulfide	0.1 mg/l, maximum
c. pH	6.0, minimum; and 9.0, maximum

2. To prevent the threat of overflows, a minimum freeboard of two (2) feet shall be maintained in the wastewater ponds at all times. Freeboard is the vertical distance between the water surface and the lowest elevation of the top of the containment structure (pond perimeter levee or outlet structure).

3. The ponds shall be managed to minimize stagnant water areas which could provide breeding conditions for mosquitos or other vectors of public health significance.

4. The public shall be effectively excluded from the wastewater pond area.

5. Conspicuous warning signs shall be posted at adequate intervals around the wastewater ponds informing the public that the water contained therein is
wastewater which is not safe for drinking or contact. Signs shall be of sufficient size and proper wording to be clearly read.

6. The wastewater ponds shall be adequately protected from erosion, washout, and flooding from a rainfall event having a predicted frequency of once in 100 years.

7. All equipment, including pumps, piping, valves, storage ponds, etc. which may at any time contain wastewater, and are publicly accessible, shall be adequately and clearly identified with warning signs to inform the public that the liquid contained therein is wastewater which is not safe for drinking or contact.

8. Waste 001 shall be kept below the ground surface at all times.

C. RECLAIMED WASTEWATER USE SPECIFICATIONS

1. Wastewater irrigation shall be limited to the area specified in Attachment A. A revised map must be submitted, and the written authorization from the Executive Officer must be obtained, before any future change is made in the area used for irrigation.

2. Wastewater irrigation ponding which could provide a breeding area for mosquitoes shall be prevented.

3. Waste 002 shall not be applied to the irrigation site when the soil is saturated or during periods of rain.

D. PROVISIONS

1. The discharger shall comply with all sections of this Order immediately upon adoption.

2. The discharger shall comply with the Self-Monitoring Program for this Order, as adopted by the Board and as may be amended by the Executive Officer.

3. The discharger shall maintain in good working order and operate, as efficiently as possible, any facility or control system installed or as modified to achieve compliance with this Order.

4. In the event the discharger is unable to comply with any of the conditions of this Order due to:

   a. Breakdown of wastewater transport or treatment equipment;
   b. Accidents caused by human error or negligence; or
   c. Other causes such as acts of nature,

   the discharger shall notify the Board by telephone as soon as the discharge or the discharger's agents have knowledge of the incident. Written confirmation of this notification shall be submitted within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

5. The wastewater treatment ponds shall be operated so as to achieve maximum freeboard between September 15 and October 1 of each year, in order to accommodate wastewater flows during the crush period.

6. The discharger shall notify the Board, in writing, at least 180 days before making any material change or proposed change in the character, location or volume of the discharge, or the characteristics of the wastewater collection, treatment or disposal facilities or practices regulated by this Order, except for during emergency conditions in which case the Board shall be notified as soon as possible thereafter.

7. The discharger shall permit the Board or its authorized representative in accordance with Section 13267(c) of the California Water Code:

   a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

b. Access to and copy of, at reasonable times, any records that must be kept under the conditions of this Order;

c. Inspection, at reasonable times, of any facility (including monitoring and control equipment), practices, or operations regulated or required under this Order; or

d. To photograph, sample or monitor, at reasonable times, for the purpose of assuring compliance with this Order.

8. The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.

9. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this Board.

10. After notice and opportunity for a hearing, this Order may be terminated or modified for cause including, but not limited to:

a. Violation of any term or condition contained in this Order;

b. Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts;

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized reuse; or

d. Endangerment to public health or environment that can only be regulated to acceptable levels by Order modification or termination.

11. The Board will review this Order periodically and may revise the requirements as necessary to comply with changing State and Federal laws, regulation, policies, or guidelines; changes in this Regional Board's Basin Plan; or changes in the discharge characteristics.

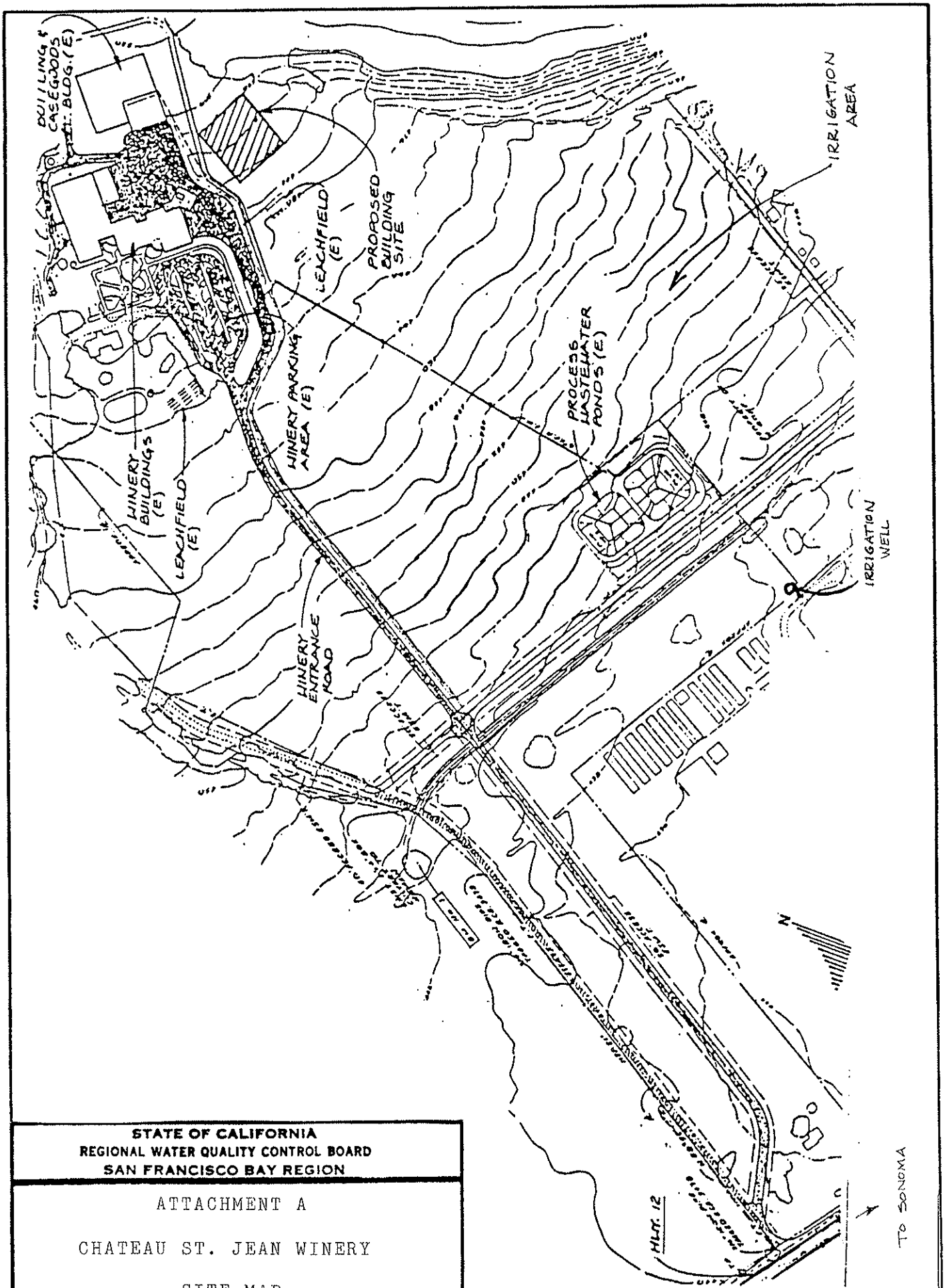
12. The Waste Discharge Requirements prescribed by this Order supersede those prescribed by this Board's Order No. 84-3. Order No. 84-3 is hereby rescinded.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on January 19, 1994.

Steven R. Ritchie
Executive Officer

Attachments;

A. Map
B. Self Monitoring Program
C. Standard Provisions and Reporting Requirements



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ATTACHMENT A

CHATEAU ST. JEAN WINERY

SITE MAP

DRAWN BY: KRH	DATE: 1/7/94	DRWG NO.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

CHATEAU ST. JEAN WINERY

KENWOOD, SONOMA COUNTY

For Waste Discharge Requirements

Order No. 94-009

CONSISTS OF

PART A

and

PART B

PART B

SELF-MONITORING PROGRAM FOR CHATEAU ST. JEAN WINERY
WASTE DISCHARGE REQUIREMENTS, ORDER NO. 94-009

I. DESCRIPTION OF SAMPLING AND OBSERVATIONS STATIONS

NOTE: A map of the facility showing locations of all sampling and observation stations described below shall accompany the first monitoring report submitted under this Self-Monitoring Program, and subsequent reports when stations are changed or a violation is reported. This map shall also accompany each Annual report.

A. WASTEWATER POND INFLUENT AND EFFLUENT

Station	Description
P-IN	At a point in the wastewater system prior to discharging into the ponds, such that the total wastewater flow into the ponds can be determined.
P-EFF	At a point in the wastewater system between the ponds and the irrigation system, such that the total wastewater flow used for irrigation can be determined.

B. WASTEWATER POND WATER

Station	Description
P-1 & P-2	Located in Ponds 1 and 2, respectively, at a point about one foot below the water surface and no less than two feet from the bank, representative of the wastewater.

C. POND OBSERVATION STATIONS

Station	Description
L-1 & L-2	Along the perimeter levees of each wastewater pond.

D. IRRIGATION AND SEWAGE DISPOSAL OBSERVATIONS

Irrigation System and Fields: The irrigation system and fields shall be checked daily during irrigation for evidence of runoff and/or ponding of water.

Sewage Disposal System: The leachfield shall be checked weekly for evidence of surfacing of wastewater.

II. SCHEDULE OF SAMPLING, ANALYSES AND OBSERVATIONS

The discharger is required to perform observations, sampling, measurements and analyses according to the schedule given in Table 1 and Table 1 Footnotes.

III. DEFINITION OF TERMS

A. A grab sample is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples represent only conditions existent at the time of sampling.

B. A flow sample is the accurate measurement of a flow volume over a given period of time using a properly calibrated and maintained flow measuring device. Other means of providing a reasonable accurate quantification of flows may be acceptable, such as calculation from pump usage records for a pump of known capacity, or determination from batch discharges of known volumes.

C. Standard Observations - Wastewater Pond Observations

(a) Freeboard: The vertical distance between the water surface and the lowest elevation of the top of the water containment structure (pond perimeter levee or outlet).

(b) Evidence of seepage from the pond (Show affected areas on sketch, and include estimated volume of flow rate).

(c) Nuisance odors from ponds: If present, indicate type of odor, cause of odor, and area affected by the odors.

(d) Evidence of mosquitoes breeding within the pond area due to stagnant water areas.

(e) Warning signs properly posted to inform public that ponds contain wastewater which is not safe for drinking or contact.

IV. MODIFICATIONS TO PART A

Add to Section C.1:

e. If any non-compliance caused by items (a), (b), or (c) in Provision 4 of Order No. 94-009 is with respect to any of the effluent limits, the waste discharger shall promptly accelerate the monitoring program to analyze the discharge at least once every day for those constituents which have been found at elevated levels. Such daily analyses shall continue until such time as the effluent limits have been attained, or until such time as the Executive Officer determines to be appropriate. The results of such monitoring shall be included in the regular Self-Monitoring Reports.

Modification to Part F.4:

Reporting Schedule for Self-Monitoring Reports - Written reports shall be submitted to this Regional Board's office for each calendar quarter, as shown below:

Quarter	Monitoring Period	Report Due Date
1 st	January, February, March	April 15th
2 nd	April, May, June	July 15th
3 rd	July, August, September	October 15th
4 th	October, November, December	January 15th

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with Waste Discharge Requirements established in Regional Board Order No. 94-009.

2. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be authorized by the Executive Officer.

3. Is effective on the date shown below.

STEVEN R. RITCHIE
Executive Officer

Effective Date
1-19-94

Attachment: A. Table 1 with Table 1 Footnotes

ATTACHMENT B: WASTEWATER STORAGE POND REPORT

REPORT PERIOD - MONTH:			

WASTEWATER FLOW INTO PONDS

Total Monthly Flow (gallons)			
Average Daily Flow (gallons/day)			

POND WATER

Sampling Date			
Pond Section (1A, 1B, etc)			
pH (units)			
Dissolved Oxygen (mg/l)			
Dissolved Sulfide (mg/l)			

STANDARD OBSERVATIONS (*) (Twice/Month)

Observation Date						
Freeboard (feet; inches)						
Seepage?						
Nuisance Odors?						
Mosquito Breeding?						
Warning Signs Properly Posted?						

(*) Standard Observations are defined in SMP Part III.C.
For each inspection record date, freeboard, and 'yes' or 'no' for other ('?') observations, according to observed conditions.
If any observations indicate a violation, the following shall be included in the quarterly monitoring report:
a. Show location of violation on a sketch of the site.
b. Explain cause and extent of violation.
c. Describe corrective actions taken, and date(s) when compliance was achieved and regular pond use was resumed.

I certify that the information in this report, to the best of my knowledge, is true and correct.

Signature

Date

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS AND ANALYSES

SAMPLING STATIONS -->	Foot-notes	P-IN P-EFF	P-1 P-2	L-1 L-2
Type of Sample -->		Flow	G	O
Parameter (units)				
Flow Volume (gallons)	(1)	M		
Flow Rate (gpd)	(2)	M		
pH (units)			M	
Dissolved Oxygen (mg/l)			M	
Dissolved Sulfide (mg/l)	(3)		M	
Freeboard				2/M
Standard Observations	(4)			2/M

LEGEND:

Type of Sample
Flow = Flow measurement
G = Grab Sample
O = Observations

Sampling Frequency
M = Monthly
2/M = Twice per month (two weeks apart)

IRRIGATION SYSTEM AND SEWAGE DISPOSAL: Monitoring shall be performed as described in Section I.d of Part B of Self-Monitoring Program.

TABLE 1 FOOTNOTES

(1) Flow Volume: Monthly, report the total flow volume, in gallons, of wastewater discharged to the pond system.
(2) Flow Rate: Monthly, determine and report the average daily flow, in gallons per day, of wastewater entering the pond system.
(3) Dissolved Sulfides: Analysis required only when Dissolved Oxygen is less than 2.0 mg/l.
(4) Standard Observations: are defined in Part III.C of this Self-Monitoring Program.